Project Report
Alaska Public Broadcasting, Inc.
Project Number No. 174-05
October 1, 2011 – December 31, 2011

Project Title & Summary

Four project work scopes are embodied in this grant award. The majority of the award is dedicated to two broad infrastructure work scopes; Public Broadcasting Facilities & Equipment Modernization Project and Radio Digital Conversion.

Public Broadcasting Facilities & Equipment Modernization Project

The purpose of the Public Broadcasting Facilities & Equipment Modernization Project is to provide much needed capital revenue for addressing system-wide infrastructure and technology priorities. In 2004, a system-wide infrastructure and technology needs assessment, ranging from basic tools to new facilities, approximated $38 million. Total Denali Commission funding: $5,617,000.

Public Radio Conversion to Digital Transmission

Alaska's 26 public radio licensees are changing their primary transmission equipment to the new standard for digital broadcasting. Funding the appropriate needs for all of the stations cost approximately $4.1 million. The Corporation for Public Broadcasting (CPB) committed $2.5 million and the Rasmuson Foundation committed approximately $700,000 toward the total. This critical funding assured that the project had the resources to meet anticipated as well as unanticipated needs. Denali Commission funding: $895,000.

Digital Distribution Network

Public broadcasting data network interconnects all of Alaska's public radio and television stations by means of a digital intranet and the internet. This project was originally funded by the Denali Commission in FY04. The funding helped complete this project and provided for some maintenance. Denali Commission funding: $100,000.

Alaska Rural Communications Service (ARCS) & Satellite Interconnection Revitalization

Repair and replacement of existing broadcast infrastructure used to deliver public telecommunications services via radio and television to Alaskans all across the State. This project was originally funded by the Denali Commission in FY04. The funding helped complete this project. Total Denali Commission funding: $100,000.

Reporting Period: October 1, 2011 – December 31, 2011

Activity during the fourth quarter of 2011 occurred within the primary work scope: the facilities and equipment modernization project.

Facilities & Equipment Modernization Project – Capital Grant Program

Overall progress to date includes successful development and implementation of this capital grant program. APBI modeled the grant program after three well established programs which are familiar to public broadcasters in Alaska: the Rasmuson Foundation, the Corporation for Public Broadcasting, and the Public Telecommunications & Facilities Program, U.S. Dept. of Commerce. We focused on the Rasmuson Foundation approach while incorporating some good ideas from the other two entities. We sought a high degree of integrity and accountability throughout the development of the grant program. Milestones reached since project inception:

2005

- Development of grant program concept and materials: overview, guidelines, priorities, procedures and panel review process, including development of application paperwork and administrative systems.
- Announcement of the Round I grant period occurred July 27, 2005. Applications were distributed electronically as well as via U.S. mail to all eligible entities. Deadline for the applications was September 30, 2005.
- A five person, independent grant panel met in Anchorage, October 16-17, 2005, to review Round I proposals and make recommendations resulting in seventeen projects being awarded $815,529 toward a total project cost of $1,228,990. Collectively, the stations funded 34% of the total project cost.
- The panel process went smoothly and produced a legitimate independent review of the proposals per the grant program priorities and guidelines. It was evident that the panel had read all proposals and had come to the meeting ready to identify and discuss the strengths and weaknesses of the proposals. Throughout the review, the APBI staff provided additional station and system information to the panel as requested.
- On October 26, 2005 the APBI board of directors approved the overall package of recommendations made by the panel and management. Round I award announcements were made October 31, 2005.

2006

- Announcement of the Round II grant period occurred March 10, 2006. Applications were distributed electronically as well as via U.S. mail to all eligible entities. Deadline for the applications was June 1, 2006.
- Round II received seventeen proposals requesting $998,290 in financial assistance toward total project costs of $1,170,232. Collectively, the stations

funded approximately 15% of the total project cost. Five proposals were for facility improvements and twelve were for equipment.

- A five person, independent grant panel met in Anchorage, June 29-30, 2006, to review proposals and make recommendations. The panel recommended that eight proposals be funded with no conditions attached and six be funded with conditions attached. Three proposals were not funded although the panel recommended that the applicants be given an opportunity to resubmit their proposals in order to address panel concerns. All three proposals were resubmitted and awarded grants.

2007

- An update of the system wide assessment was completed in August, 2007. Although many needs have been met since the original assessment in 2004, the system reports approximately $36 million in unmet capital needs.
- Announcement of Round III of the grant program occurred August 17, 2007. Applications were distributed electronically to all eligible entities. Deadline for application was October 19, 2007. Sixteen proposals were received by the deadline requesting $916,371 toward a combined total project cost of $1,179,703. Collectively, the stations funded approximately 17% of the total project costs. The proposals were reviewed by a grant panel on November 15-16, 2007.
- Round III grant award announcements were made in early December, 2007. The panel recommended that five proposals be funded with no conditions attached and eight be funded with conditions attached. Three proposals were not funded although the panel recommended that the applicants be given an opportunity to resubmit their proposals in order to address panel concerns. One of the three proposals has been resubmitted and was awarded a grant following additional panel review.

2008

- Round IV was announced October 1, 2008. Deadline for application was December 10, 2008. Fourteen proposals were received by the deadline requesting $902,753 toward a combined total project cost of $1,016,831. Collectively, the stations funded approximately 11% of the proposed total project costs.

2009

- Round IV grant panel met January 22-23, 2009 in Anchorage. Round IV grant award announcements were made in early February, 2009. The panel recommended that six proposals be funded with no conditions attached and six be funded with conditions attached. Two proposals were not funded although the panel recommended that the applicants be given an opportunity to resubmit

their proposals in order to address panel concerns. The two proposals were resubmitted and awarded grants.

- Round V of the grant program was announced on August 14, 2009. Deadline for applications was October 23, 2009. The Round V grant panel met in Anchorage, November 13-14, 2009. The panel recommended funding for 14 station based capital projects; a total award of $808,782 toward a total combined project cost of $934,297. Collectively, the stations funded 13% of the total project costs. Project award announcements were made in mid December, 2009.

2010

- On March 31, 2010 the Denali Commission approved an extension to this project and the new deadline for project completion is December 31, 2011.
- Round VI of the grant program is likely to be the final grant round. Round VI was announced on July 16, 2010. Deadline for application was September 30, 2010. The Round VI independent grant panel met in Anchorage October 21-22, 2010.
- The panel recommended funding for 17 station based capital projects; a total award of $701,245 toward a total combined project cost of $799,230. Collectively, the stations funded 12% of the total project costs. Project award announcements were made in mid November, 2010.

2011

- Since project inception, the Capital Grant Program has conducted six formal grant rounds awarding funds for 94 station based projects. The total combined cost of the 94 projects is $5,246,852. The Capital Grant Program share to date is $4,250,711 or 79% while the station total match to date is $1,094,485 or 21%. In addition, the system facilities and equipment modernization project has funded the very successful Dynamic Carrier Control Project, statewide upgrade of station based Emergency Alert System (EAS) equipment, and purchase of test equipment for station and system benefit.
- In consultation with our program officer, APBI filed for an amendment to extend the grant award through March 31, 2012. This extension allowed APBI to keep nine station based projects open in order to give them necessary time to get qualified engineers and contractors into their communities in order to complete the proposed work scopes. Four of those grants have since been closed out. Currently, there are 5 open grants.

Dynamic Carrier Control Project activity during the fourth quarter of 2011:

There are seven stations operating 10 KW AM transmitters in Alaska. They serve rural areas and have seen the electrical utility costs increase dramatically the last few years. One of the transmitters is powered by on-site generators and diesel costs have skyrocketed. Costs are approaching $0.50/kilowatt hour. These transmitters consume

24 kilowatts at peak modulation. APBI conducted research to help reduce the amount of power used by these installations.

The Dynamic Carrier Control technology was developed in England and Europe in the 1980's. This method of modulation helps reduce electricity costs. It is used all over the world with the exception of North America. This is because utility costs were low until recently. Until recently, there has been an FCC regulation forbidding this technology based on reasons which are now obsolete. APBI applied to the FCC for an Experimental Authorization to show that this technology could be applied without degradation of audio.

Installation of this cutting edge energy saving technology has been completed at all seven stations: KDLG-AM, Dillingham, KOTZ-AM, Kotzebue, KYUK AM, Bethel, KBBI-AM, Homer; KCHU-AM, Valdez; KSKO-AM, McGrath and KBRW-AM, Barrow. All seven transmitters have been converted and are operational and station managers expect power savings to be on the order of 25-30 percent. Some final transmitter adjustments need to take place in Barrow and Valdez. Those adjustments will be made the next time engineers travel to those stations for other work.

APBI presented a paper on this project at the 2011 National Association of Broadcasters convention. There is much interest in adopting this technology in the lower 48. The FCC recently approved the use of carrier control technology for stations in the lower 48. Both Nautel and Harris report that they have been deluged with requests for information about the technology and with orders for the equipment. APBI is a pioneer in the development of this energy saving technology in the United States.

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